Panasonic

Video Cassette Recorder

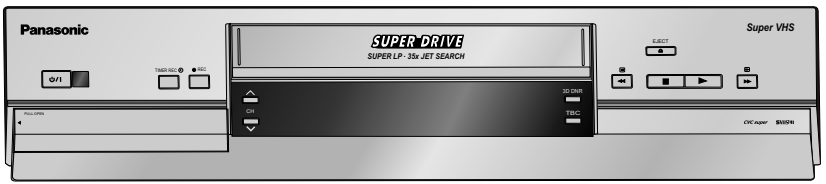
Operating Instructions

S-VHS VHS PAL 625

NV-SV121 Series (S-VHS, Hi-Fi)

VHS PAL

NV-HV61 Series (Hi-Fi) **NV-MV21** Series (Mono)
NV-HV51 Series (Hi-Fi) **NV-MV16** Series (Mono)



Before connecting the device, operating it or adjusting settings please read these operating instructions completely; especially the safety precautions on pages 2-3.

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Dear customer

Thank you for your trust and your decision to purchase this top-quality device. Panasonic is one of the leading manufacturers of entertainment electronics devices. We are sure that you will be completely satisfied with this device.

Matsushita Electric Industrial Co., Ltd.
http://www.panasonic.co.jp/global/

Included Accessories

Remote control N2QAJB000088: NV-SV121, NV-HV61, NV-MV21
N2QAJB000090: NV-HV51, NV-MV16

AC Mains Lead
RJA0043-1C

Batteries
AA, UM3 or R6

RF Coaxial cable

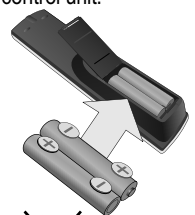
Operating Instructions

Guarantee Card

Inserting Batteries

The batteries last for about a year, depending on how often you use the remote control unit.

- Do not mix old with new batteries or batteries of different types.
- Only use batteries without any harmful substances (lead, cadmium, mercury).
- Do not use rechargeable type batteries.
- Remove the batteries if the remote control unit will remain unused for longer periods of time.
- Do not heat or short-circuit the batteries. Immediately remove used-up batteries and replace with batteries of type AA, UM3 or R6.
- Be sure to put in the batteries the right way round (+ and -).



Dispose of **batteries**, packaging material and the unit according to statutory regulations. They must not be thrown into the household refuse.

NORSK

ADVARSEL:
FOR Å REDUSERE FAREN FOR BRANN, ELEKTRISK STØT ELLER SKADER PÅ PRODUKTET, MÅ DETTE APPARATET IKKE UTSETTES FOR REGN, FUKTIGHET, VANNDRÅPER ELLER VANNSPRUT. DET MÅ HELLER IKKE PLASSERES GJENSTANDER FYLT MED VANN, SLIK SOM BLOMSTERVASER, OPPÅ APPARATET.

ADVARSEL!

- **APPARATET MÅ IKKE PLASSERES I EN BOKHYLLE, ET INNEBYGGET KABINETT ELLER ET ANNET LUKKET STED HVOR VENTILASJONSFORHOLDENE ER UTILSTREKKELIGE. SØRG FOR AT GARDINER ELLER LIGNENDE IKKE FORVERRER VENTILASJONSFORHOLDENE, SÅ RISIKO FOR ELEKTRISK SJOKK ELLER BRANN FORÅRSAKET AV OVERHETING UNNGÅS.**
- **APPARATETS VENTILASJONSÅPNINGER MÅ IKKE DEKKES TIL MED AVISER, BORDDUKER, GARDINER OG LIGNENDE.**
- **PLASSER IKKE ÅPEN ILD, SLIK SOM LEVENDE LYS, OPPÅ APPARATET.**
- **BRUKTE BATTERIER MÅ KASSERES UTEN FARE FOR MILJØET.**

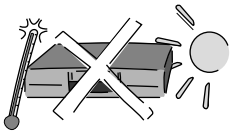
DETTE APPARATET ER BEREGNET TIL BRUK UNDER MODERATE KLIMAFORHOLD.

Dette apparatet kan under bruk fange opp høyfrekvente forstyrrelser forårsaket av en mobiltelefon som benyttes i nærheten. Hvis slik forstyrrende påvirkning konstateres, bør mobiltelefonen benyttes på større avstand fra dette apparatet.

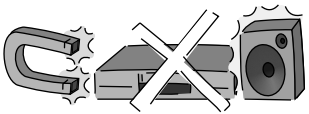
Utstyret bør plasseres i nærheten av AC-stikkontakten, og støpslet må være lett tilgjengelig hvis det skulle oppstå problemer.

Safety Precautions

Keep the VCR away from high temperatures and avoid changes in temperatures.



Avoid magnets or magnetised objects.



Don´t put fingers or other objects inside.

Keep away from liquids.

Keep away from humidity and dust.

Install the VCR in a horizontal position. Do not place anything heavy on it.

Voltage: Only use power sources complying with the specifications for this device.

AC mains lead protection: Ensure the AC mains lead is connected correctly and not damaged. Poor connection and lead damage can cause fire or electric shock.

Service: Never attempt to repair this unit by yourself. If a problem occurs that is not described in these operating instructions, disconnect the power supply and contact your dealer or an authorised after sales service centre.

The model and serial number of this product can be found on the back of the unit. Please note them and keep for future reference. **Model No.**..... **Serial No.** .....

WARNING:
TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK OR PRODUCT DAMAGE, DO NOT EXPOSE THIS APPARATUS TO RAIN, MOISTURE, DRIPPING OR SPLASHING AND THAT NO OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHALL BE PLACED ON THE APPARATUS.

CAUTION!

- **DO NOT INSTALL OR PLACE THIS UNIT IN A BOOKCASE, BUILT-IN CABINET OR IN ANOTHER CONFINED SPACE. ENSURE THE UNIT IS WELL VENTILATED. TO PREVENT RISK OF ELECTRIC SHOCK OR FIRE HAZARD DUE TO OVERHEATING, ENSURE THAT CURTAINS AND ANY OTHER MATERIALS DO NOT OBSTRUCT THE VENTILATION VENTS.**
- **DO NOT OBSTRUCT THE UNIT'S VENTILATION OPENINGS WITH NEWSPAPERS, TABLECLOTHS, CURTAINS, AND SIMILAR ITEMS.**
- **DO NOT PLACE SOURCES OF NAKED FLAMES, SUCH AS LIGHTED CANDLES, ON THE UNIT.**
- **DISPOSE OF BATTERIES IN AN ENVIRONMENTALLY FRIENDLY MANNER.**

THIS UNIT IS INTENDED FOR USE IN MODERATE CLIMATES.

This product may receive radio interference caused by mobile telephones during use. If such interference is apparent, please increase separation between the product and the mobile telephone.

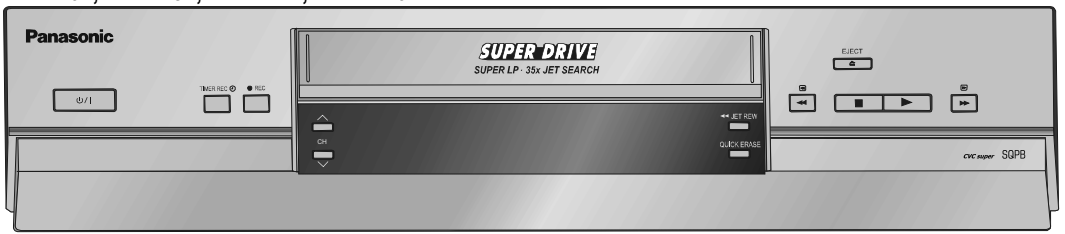
The socket outlet shall be installed near the equipment and easily accessible or the mains plug or an appliance coupler shall remain readily operable.

Front Panel VCR

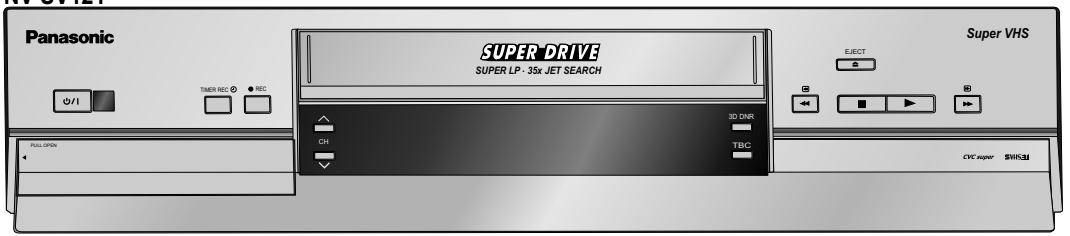
VCR= Video Cassette Recorder

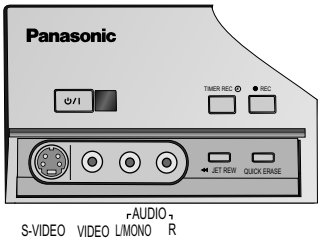
Detailed information is available on the specified pages. Page

NV-HV61, NV-HV51, NV-MV21, NV-MV16



NV-SV121

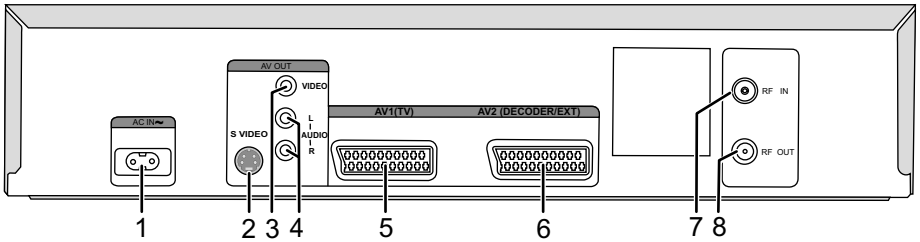




CVC super (Crystal View Control super): The picture is automatically adjusted as clear and sharp as possible.

SV121 HV61 HV51 MV21 MV16			
⏻/I	**Stand-by/on switch ⏻/I**	■	Stop ends recording, playback, or winding.
TIMER REC	Activates the recording timer. 21	▶	Playback 26
● REC	Record 20	◀◀ JET REW	Fast rewind to the beginning of the tape. 27
EJECT ⏏	Ejects the cassette. 28	QUICK ERASE	Erases a cassette. 28
CH ▲ ▼	Channel selector	⏮ ⏭ ◀◀ ▶▶	Search Fast winding 27
SV121			
3D DNR	3-Dimensional Digital Noise Reduction 28	TBC	Time Base Correction: Optimises picture quality 28

Rear Panel VCR



SV121 HV61 HV51 MV21 MV16

1	AC IN~ (Power supply)
2	S-VIDEO output
3	VIDEO output
4	AUDIO output L = AUDIO output left channel R = AUDIO output right channel

5	AV1 (21-pin Scart socket)
6	AV2 (21-pin Scart socket)
7	RF IN = Antenna input
8	RF OUT = Antenna output

SV121 **HV61** HV51 MV21 MV16

1	AC IN~ (Power supply)
4	AUDIO output L = AUDIO output left channel R = AUDIO output right channel

5	AV1 (21-pin Scart socket)
6	AV2 (21-pin Scart socket)
7	RF IN = Antenna input
8	RF OUT = Antenna output

SV121 HV61 **HV51EC** MV21 MV16

1	AC IN~ (Power supply)

5	AV1 (21-pin Scart socket)
6	AV2 (21-pin Scart socket)
7	RF IN = Antenna input
8	RF OUT = Antenna output

SV121 HV61 **HV51EG MV21 MV16**

1	AC IN~ (Power supply)

5	AV (21-pin Scart socket)
7	RF IN = Antenna input
8	RF OUT = Antenna output

Remote control functions

TV Controls

Some Panasonic television sets may be controlled with the remote control unit of this VCR.

⏻	Television set Stand-by/on switch.
AV	Selects the TV set's AV port.
CH ^ / CH v	Channel selector.
VOL + / VOL −	Volume control.

VCR Playback Control

▶	Normal playback	26
■	Stop ends recording, playback, or winding. Eject: Press and hold for more than 3 seconds.	
◀◀ ▶▶	Fast forward/rewind when stopped, search forward or backwards during playback.	27
PAUSE/SLOW ⏸/▶	Stop a recording session. Still playback or Slow Playback.	27
⌐INDEX¬ ⏮ ⏭	Search beginning of a recording session.	27
JET REW ◀◀	Fast rewind to beginning of tape.	27

N2QAJB000088

N2QAJB000088: NV-SV121, NV-HV61, NV-MV21
N2QAJB000090: NV-HV51, NV-MV16

VCR Standard Controls

VCR	**Stand-by/on switch** Press to switch the unit from on to stand-by mode or vice versa. In stand-by mode, the unit is still consuming a small amount of power.	
MENU	Displays the menu.	14
EXIT	Quits a menu.	14
INPUT SEL	Switches between AV inputs A1, A2, A3 and Tuner (depending on model).	13
AUDIO	Audio mode.	28
AV LINK	Switches from television reception to the video playback channel. (does not apply to HV51EG, MV21, MV16)	
EXT LINK	Records with external recording control.	25

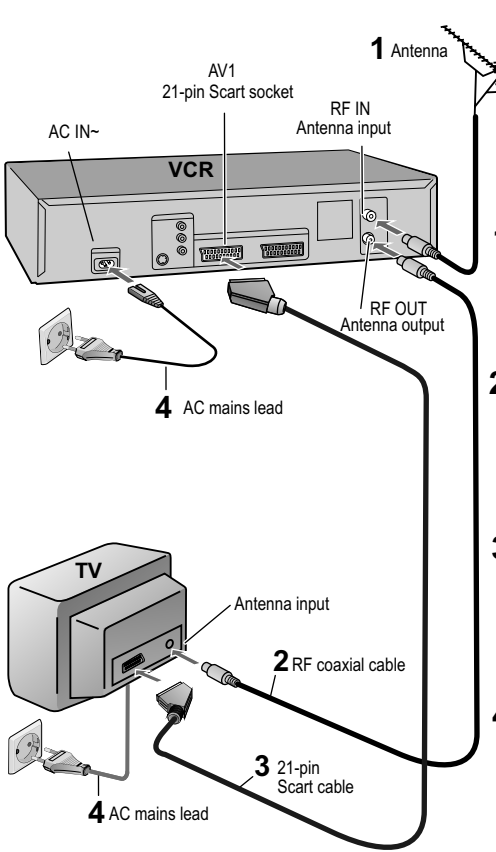
STATUS	Press repeatedly to display the time, tape counter or tape remain.	20
RESET/CANCEL	**RESET** : Resets the counter to 0:00.00. **CANCEL** :Clears an entry you made.	28
1 2 3 4 5 6 7 8 9 0 -/--	Select programme storage position or enter the ShowView number. E.g.: 18 = -/-- 1 8	24
TRACKING/V-LOCK CH + −	Channel select buttons. Tracking control of VCR picture disturbance.	26
ENTER	Menu navigation buttons. **ENTER:** Selecting or storing settings.	

VCR Recording Controls

ShowView	ShowView Menu (does not apply to HV51, MV16).	24
I-TIMER	Programming TV programmes broadcasted at the same time and on the same channel.	23
OFF-TIMER	Switches the VCR into stand-by mode after a preset period of time during recording, playback or stop mode.	26
PROG /CHECK	Displays the menu Timer recording.	21
PROG PLAY	Plays back programmed recordings.	22

TIMER	Activate the recording timer mode.	21
REC	Record	20
REC MODE	Sets the tape speed.	20
A	Delete highlighted station.	16
B	Move highlighted station.	16

Connecting with a 21-pin Scart cable



Follow the steps described below.

Disconnect power to all devices.

1 Connect antenna to the RF IN (Antenna input) connector of the VCR.

2 Connect the VCR's RF OUT (Antenna output) to the television set's antenna input connector.

3 Connect the VCR's AV1 socket (21-pin Scart socket) to the TV set's Scart In socket.

4 Connect VCR and TV set to the AC mains supply.

VCR Auto Setup with 21-pin Scart cable

(Automatic tuning)

Country		
Belgien	Italia	Sverige
Belgique	Nederland	Schweiz
België	Norge	Suisse
Danmark	Österreich	Svizzera
España	Deutschland	others
Ελλάδα	Portugal	
France	Suomi	

SV121 HV61 HV51 MV21 MV16

***** If the Country menu does not appear after turning the device on, you may reset the device to its factory defaults (page 17). Upon doing so the VCR Auto Setup will start again.

- Turn on your television set.
- With the **Stand-by/on switch** turn on the VCR. The Country menu appears.
- With the arrow buttons ◀▶▲▼ select the according country, and confirm by pressing **ENTER**. Automatic tuning for all receivable TV stations begins. Approximate duration is 5 minutes.

SV121 HV61 HV51 **MV21** MV16

If menu Clock set appears

If time and date are not transmitted by a TV station, they must be set manually.

- Enter Time and Date with ▲▼ ◀▶ or ❶ ❷ ❸...❿ , then save with **ENTER**.

***** Mind that a wrong date or time will influence the programmed recording of TV programmes (don't forget to change summer time and winter time).

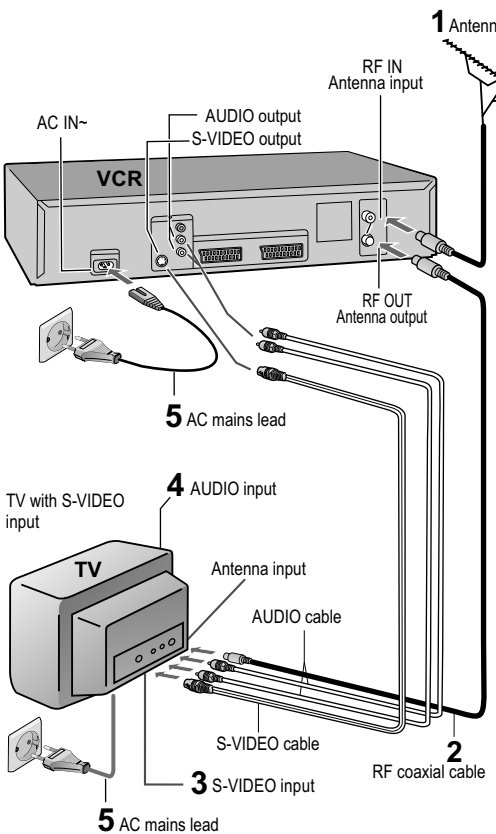
SV121 HV61 **HV51** MV21 **MV16**

After running the automatic tuning Time and Date must be set manually.

- Enter Time and Date with ▲▼ ◀▶ or ❶ ❷ ❸...❿ , then save with **ENTER**.

Connecting with S-VIDEO cable.

SV121 Only



Follow the steps described below.

Disconnect power to all devices.

1 Connect antenna to the RF IN (Antenna input) connector of the VCR.

2 Connect the VCR's RF OUT (Antenna output) to the TV set's antenna input connector.

3 Connect the VCR´s S-VIDEO output to the S-VIDEO input of your television set.

4 Connect the VCR's AUDIO output (L/R) to the AUDIO input of your TV set.

5 Connect VCR and television set to the AC mains supply.

VCR Auto Setup with S-VIDEO cable

(Automatic tuning)

This VCR supports the S-VHS format, providing a high picture quality when playing back a S-VHS formatted cassette. When connecting via a S-VIDEO cable, it is still possible to play back cassettes recorded on the conventional VHS system.

Country		
Belgien	Italia	Sverige
Belgique	Nederland	Schweiz
België	Norge	Suisse
Danmark	Österreich	Svizzera
España	Deutschland	others
Ελλάδα	Portugal	
France	Suomi	

SV121 HV61 HV51 MV21 MV16

* If the Country menu does not appear after turning the device on, you may reset the device to its factory defaults (page 17). Upon doing so the VCR Auto Setup will start again.

- Turn on your television set.
- With the **Stand-by/on switch** turn on the VCR. The Country menu appears.
- With the arrow buttons ◀▶▲▼ select the according country, and confirm by pressing **ENTER**. Automatic tuning for all receivable TV stations begins. Approximate duration is 5 minutes.

If menu Clock set appears

If time and date are not transmitted by a TV station, they must be set manually.

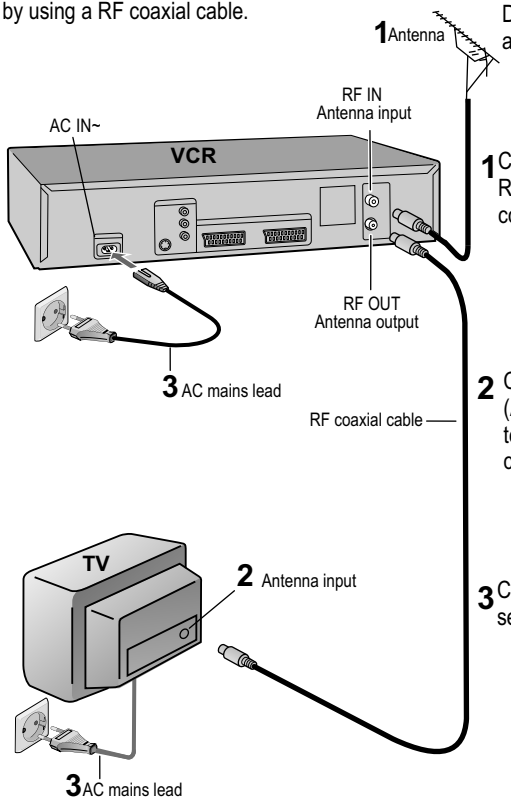
- Enter Time and Date with ▲▼ ◀▶ or ❶ ❷ ❸...❿ , then save with **ENTER**.

* Mind that a wrong date or time will influence the programmed recording of TV programmes (don't forget to change summer time and winter time).

Connecting with RF Coaxial cable

You can connect the VCR to your TV set by using a RF coaxial cable.

Follow the steps described below.



Disconnect power to all devices.

1 Connect antenna to the RF IN (Antenna input) connector of the VCR.

2 Connect the VCR´s RF OUT (Antenna output) to the television set's antenna in connector.

3 Connect VCR and television set to the AC mains supply.

VCR Auto Setup with RF Coaxial cable

(Automatic tuning)

Country		
Belgien	Italia	Sverige
Belgique	Nederland	Schweiz
België	Norge	Suisse
Danmark	Österreich	Svizzera
España	Deutschland	others
Ελλάδα	Portugal	
France	Suomi	

SV121 HV61 HV51 MV21 MV16

* If the Country menu does not appear after turning the device on, you may reset the device to its factory defaults (page 17). Upon doing so the VCR Auto Setup will start again.

The Country menu appears.

- With the arrow buttons ◀▶▲▼ select the according country, and confirm with **ENTER**.
  Automatic tuning for all receivable TV stations begins.
  Approximate duration is 5 minutes.

SV121 HV61 HV51 **MV21** MV16

If menu Clock set appears

If time and date are not transmitted by a TV station, they must be set manually.

- Enter Time and Date with ▲▼ ◀▶ or ❶ ❷ ❸...❿ , then save with **ENTER**.

* Mind that a wrong date or time will influence the programmed recording of TV programmes (don't forget to change summer time and winter time).

SV121 HV61 **HV51** MV21 **MV16**

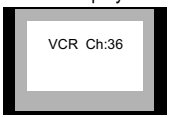
After running the automatic tuning Time and Date must be set manually.

- Enter Time and Date with ▲▼ ◀▶ or ❶ ❷ ❸...❿ , then save with **ENTER**.

Channel tuning / Correcting interferences

If you decide to just use the RF coaxial cable to connect the TV set you must adjust the video output channel with the TV set's input channel.

Screen Display



Test pattern

- Turn on your television set.
- Turn on the VCR by pressing the **Stand-by/on switch**.
- Press **MENU** for about 5 seconds. The preset channel is displayed on the VCR-display.
- Adjust television set to show the test picture.
  If there are any interferences select another channel on the television set and the VCR.

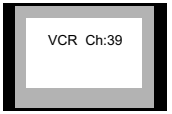
VCR Display

RF Output Channel

- Press the **CH** button to change the channel (e.g. Channel 39). Fine-tune television set until a clear picture is displayed.

RF Output Channel

- Confirm with **ENTER**.
  Continue VCR Auto Setup (Automatic tuning).

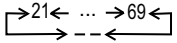


Test pattern

***** The VCR will not initiate the VCR Auto Setup if it was run once before.
Reset the device to factory defaults (page 17). Upon doing so you will be able to start VCR Auto Setup again.

***** Press **EXIT** to abort VCR Auto Setup. You can run VCR Auto Setup again at another time.

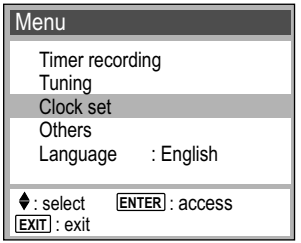
If a 21-pin Scart cable is used, please adjust the following settings to disable the VCR´s RF-output channel.



(RF OFF)

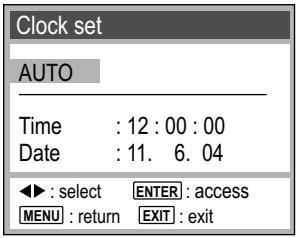
- Press **MENU** for about 5 seconds. The preset channel will be displayed on the VCR-display.
- Press channel select buttons **CH** or **0** to invoke [- -].
- Confirm with **ENTER**.

Setting Time and Date



- Press **MENU**,
  the Menu screen appears.
- With ▲▼ select Clock set.
- Press **ENTER.**

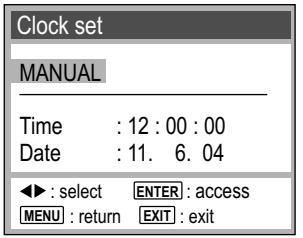
Automatic tuning



- Select [AUTO] and confirm with **ENTER**.

  If the device does not find a TV station broadcasting the time signal, set Time and Date manually.

Manual tuning



- Select [MANUAL] and confirm with **ENTER**.
- With ▲▼ ◀▶ or 1 2 3 ... 0 enter Time and Date, then store with **ENTER**.

External Devices

HV61 HV51EC

Others	1 / 2
Tape length	: AUTO (◀ E-240)
AV2	: EXT
TV system	: AUTO
SQPB	: AUTO
OSD	: 4 : 3
Power save	: OFF
VCR display:	ON

SV121

Others	1 / 2
Tape length	: AUTO (◀ E-240)
AV2	: DECODER
AV2 IN	: VIDEO
AV1 OUT	: VIDEO
TV system	: AUTO
S-VHS playback	: AUTO
OSD	: 4 : 3

Tuning

Pos	Name	Ch	Pos	Name	Ch
1	ARD	7	6	VOX	8
2	ZDF	4	7	PRO7	95
3	N3	2	8	RTL2	85
4	RTL	12	9	PREM	97
5	SAT1	13	10	S-RTL	98

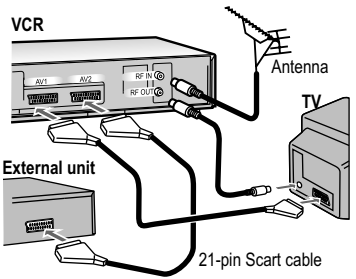
A : delete B : move
◆◆ : select ENTER : access
MENU : return EXIT : exit

SV121 HV61 HV51EC HV51EG MV21 MV16

Connecting a Set Top Box, satellite receiver, decoder or a second recorder.
You can connect a Set Top Box to receive digital broadcast by antenna (DVB-T) signals, a satellite receiver (digital/analogue) or a decoder to decrypt encrypted programmes.

Disconnect power to all devices.
Connect the external device to the AV2 input of the VCR by using a 21-pin Scart cable.
Connect VCR, television set and the external unit to the AC mains supply and switch it on.

- Press **MENU**.
- With ▼ select the Others menu and confirm with **ENTER**.



Set Top Box, satellite receiver, second recorder:

- Select AV2 with ▼, and set to [EXT] with ◀▶.

Decoder:

- Select AV2 with ▼, and set to [DECODER] with ◀▶.
  This setting does not allow you to change option AV2 IN.
- Press **MENU** to return to the Menu screen.
  When using a decoder switch channel to decoder.

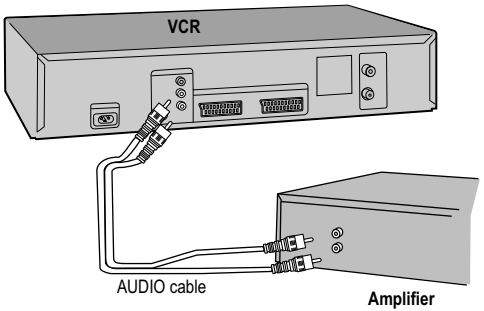
Setting the channel to decoder

- Press **MENU**.
- With ▼ select menu Tuning and confirm with **ENTER**.
- With **ENTER** select Manual.
- With ◀▶, ▲▼ select the encrypted channel and confirm with **ENTER**.
- With ▼ select Decoder, then select [ON] with ◀▶.
- Press **MENU** to return to the Tuning menu.

Pos	: 9
Name	: PREM
Channel	: 97
Fine tuning	: AUTO
Decoder	: ON
Video system	: PAL
Mono	: OFF

◆◆ : select
MENU : return EXIT : exit

External Devices



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Connecting an amplifier

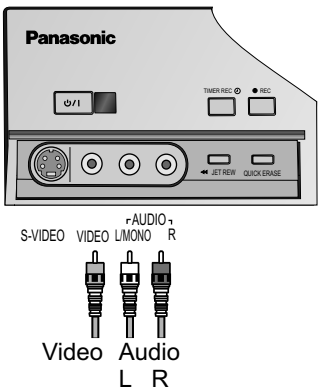
Disconnect power to all devices.

Use an audio cable to connect your VCR to a stereo amplifier.

Left = white (L) Right = red (R)

Connect VCR, television set and the Amplifier to the AC mains supply.

* If you have a scart adapter cable you can also connect the VCR's AV socket to an amplifier.



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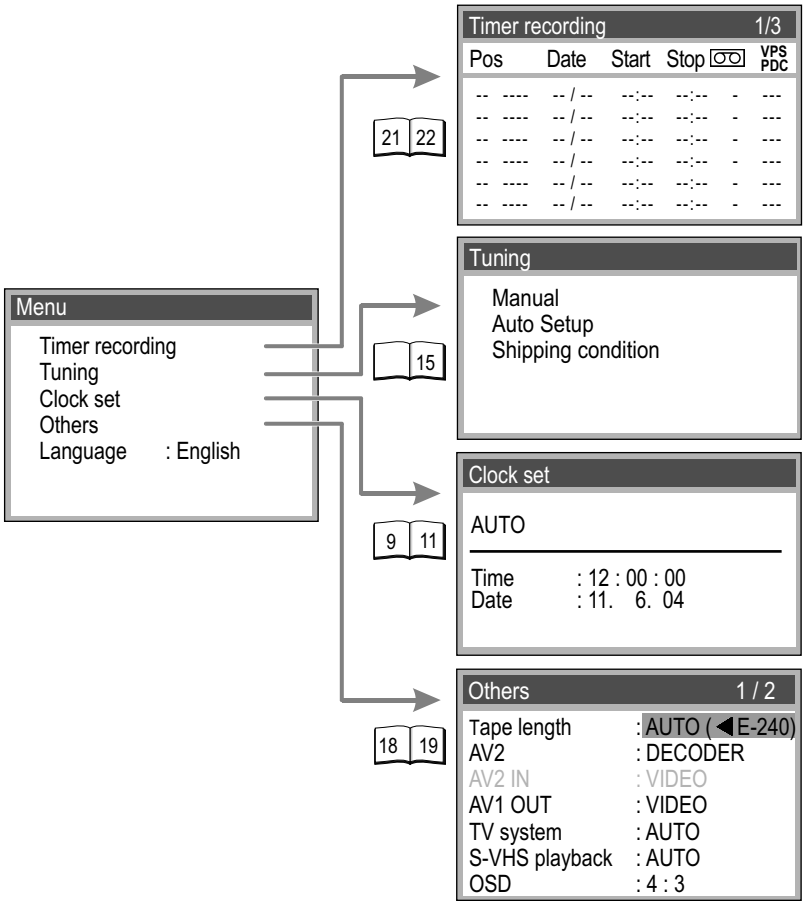
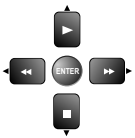
Connecting to the AV3 input

- Connect the VIDEO/S-VIDEO output of the device to be connected to the front panel VIDEO/S-VIDEO input of the VCR (e.g. a video camcorder).
- Connect the AUDIO output of the device to be connected to the AUDIO input of the VCR.
- With **INPUT SEL** select A3.

* To record the audio signal in Mono format, connect only the L/MONO input.

Menu



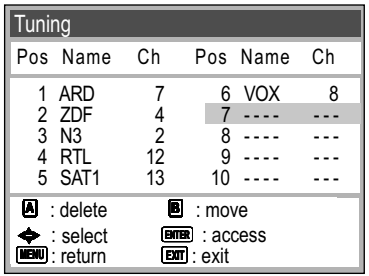


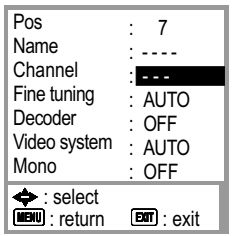
The cursor buttons on the remote control unit allow you to navigate through menus and change selected entries.

- Press **MENU**, the menu screen appears.
- With ▲▼ select the desired sub-menu.
- Press **ENTER**, the selected menu appears.
- With ▲▼ select the entry you would like to change, then confirm with **ENTER**.
- Make your changes following the menu steps.
- With **MENU** return to the previous menu.
- Press **EXIT** to leave the menu.

***** Not every model supports all of the functions.

Manual Setup


Tuning
Pos Name Ch Pos Name Ch
1 ARD 7 6 VOX 8
2 ZDF 4 7 ---- ---
3 N3 2 8 ---- ---
4 RTL 12 9 ---- ---
5 SAT1 13 10 ---- ---
A : delete B : move
: select ENTER : access
MENU : return EXIT : exit



Creating a new station table

- Press **MENU**, the Menu screen appears.
- Select the Tuning menu by pressing ▼ and confirming with **ENTER**.
- Confirm Manual by pressing **ENTER**.
- With the ◀▶▲▼ buttons, select an open storage position.
- Press **ENTER**.

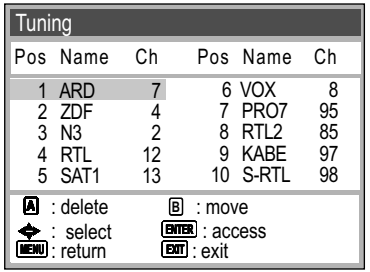
- Enter channel with the ◀▶ or ❶ ❷ ❸…⓪ buttons.
  Channel tuning starts. Wait until the desired station has been set.
  Fine tuning may help to minimise any interference.
- Press **MENU** to return to the Tuning screen.

Options available for tuning the channels

***** Not every model supports all of the functions.

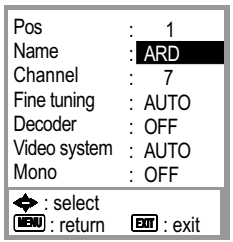
Pos		Station position.
Name		Station name setting.
Channel		Channel setting.
Fine tuning	AUTO / MAN.	Fine tuning of disturbed picture.
Decoder	ON / OFF	For reception of encrypted channels.
Video system	AUTO / PAL / MESECAM	TV system setup.
Mono	ON / OFF	Switch stereo to mono.

Manual Setup

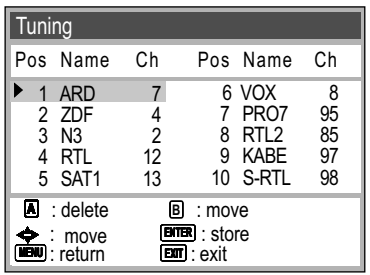

Tuning
Pos Name Ch Pos Name Ch
1 ARD 7 6 VOX 8
2 ZDF 4 7 PRO7 95
3 N3 2 8 RTL2 85
4 RTL 12 9 KABE 97
5 SAT1 13 10 S-RTL 98
A : delete
B : move
: select
ENTER : access
MENU : return
EXIT : exit

Changing the name of TV stations

- Press **MENU**, the Menu screen appears.
- With ▼ select the Tuning menu, confirm with **ENTER**.
- Confirm Manual with **ENTER**.
- With ◀▶▲▼ select the name entry.
- Press **ENTER**.



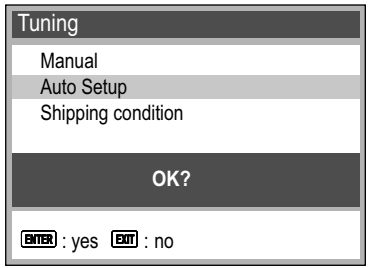
- With ◀▶ select the name entry.
  The cursor will mark the first letter **ARD**.
- With ▲▼ change that letter.
- With ▶ select the next letter **ARD**.
- Press **MENU**.
  The new name will be stored in Tuning.

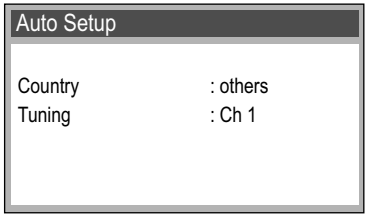

Tuning
Pos Name Ch Pos Name Ch
1 ARD 7 6 VOX 8
2 ZDF 4 7 PRO7 95
3 N3 2 8 RTL2 85
4 RTL 12 9 KABE 97
5 SAT1 13 10 S-RTL 98
A : delete
B : move
: move
ENTER : store
MENU : return
EXIT : exit

Changing the order of TV stations or deleting a station

- Press **MENU**, the Menu screen appears.
- With ▼ select the Tuning menu, confirm with **ENTER**.
- Confirm Manual with **ENTER**.
- Press B . An arrow to the left will mark the selected field.
- With ◀▶▲▼ move the station to any other desired location.
- Press **ENTER**.
- Press A to delete the station.

Manual Setup





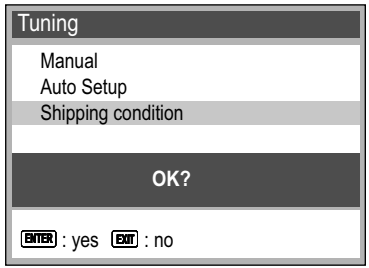
Creating a new station table

- Press **MENU**, the Menu screen appears.
- With ▼ select the Tuning menu, confirm with **ENTER**.
- With ▼ select Auto Setup, confirm with **ENTER**.
- Press **ENTER** to confirm.

The Country menu appears.

- Select country with ◀▶▲▼ and confirm with **ENTER**.

The Auto Setup menu will be displayed.
The Automatic Tuning will start.



Shipping condition/factory defaults

- Press **MENU**, the Menu screen appears.
- With ▼ select the Tuning menu, confirm with **ENTER**.
- With ▼ select Shipping condition and confirm with **ENTER**.
- Press **ENTER** to confirm.

***** To restore factory defaults briefly unplug the AC mains lead. Afterwards you will have to run VCR Auto Setup again.

Menu Others

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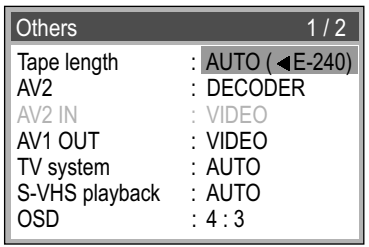
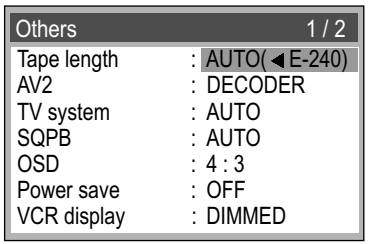
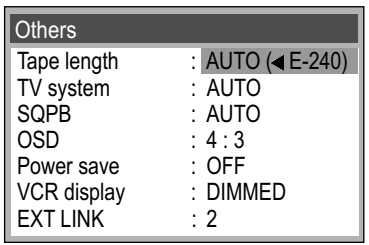


HV61 HV51EC



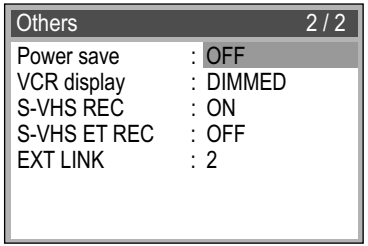
HV51EG MV21 MV16



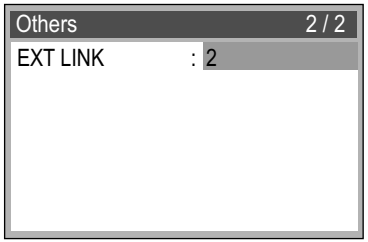
Tape length	Sets the tape length of the cassette you use. **AUTO** (◀E - 240), E - 195, E - 260, E - 300
AV2	Selects the type of external unit connected to the VCR's AV2 socket. **DECODER :** If a decoder is connected. **EXT :** If another video recorder or satellite receiver is connected.
AV2 IN	Allows you to record the S-Video signal of an external unit connected to the video recorder's AV2 socket. **VIDEO :** If the unit does not support S-VIDEO. **S-VIDEO :** If the unit supports S-VIDEO. To connect use a 21-pin scart cable.
AV1 OUT	**VIDEO :** Video signal via the 21-pin scart cable. **S-VIDEO :** S-Video signal via the 21-pin scart cable.
TV system	**AUTO :** Automatically detects PAL or MESECAM. **PAL :** If you are using the PAL system. **MESECAM :** If you are using the MESECAM system.
S-VHS playback	**AUTO :** The VCR automatically detects the type of recording. **ON :** Plays back S-VHS format cassettes in the S-VHS format only. **OFF :** Plays back cassettes recorded in VHS format only.
OSD	**4:3 :** Displays appear at the edge of the screen (displays not visible on 16:9 format screens). **WIDE :** Displays appear at the edge of the screen (displays appear in the middle on 4:3 format screens). **OFF :** No on-screen displays.
SQPB	**AUTO :** The VCR automatically detects the type of recording. **ON :** Plays back S-VHS format cassettes in quasi S-VHS format. **OFF :** Plays back cassettes recorded in VHS format only.

Menu Others

SV121



HV61 HV51EC



Press ▲▼ to display the 2nd screen.

Power save Only in stand-by mode	**ON** : The video recorder's display unit is off. In Power save mode, you cannot change the VCR display setting. To control an external appliance via AV2 Scart socket, the VCR first needs to be switched on. **OFF** : Factory setting; you can change the VCR display setting.
VCR display Only in stand-by mode	Available only if the unit is not in Power save mode. **DIMMED** : The video recorder's display is dimmed. **ON** : The video recorder's display unit is on at normal brightness.
S-VHS REC	In conjunction with the PAL TV system only. **ON** : For S-VHS format recordings on a S-VHS type cassette. **OFF** : For VHS format recordings on a S-VHS type cassette.
S-VHS ET REC In SP mode only	In conjunction with the PAL TV system only. **ON** : Takes recordings at a higher picture quality on VHS-HG cassettes. **OFF** : Takes standard quality recordings.
EXT LINK	**2** : External recording control by satellite receivers or digital receivers (video signal). **1** : For digital receivers transmitting a special recording control signal, e.g. the F.U.N. receiver (TU-DSF41).

Recording

Recording functions

REC

Direct recording of the VCR - TV picture. 20

Timer recording

Recording controlled by timer. 21

Recording with INTELLIGENT TIMER

Repeating programmed recordings. 23

Recording with ShowView

Programming recordings using the ShowView function. 24

Recording with external recording controls

Recording is controlled by an external device. 25

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Set the TV set to the video channel and insert a cassette into the VCR; make sure that the cassette's protection tab is intact.

- Select channel to record from.
  When recording from an external device, select from Scart inputs AV1, AV2, or the front panel input AV3.
- Press **REC** to start recording.
- Press **STOP** □ to stop recording.
- Press **PAUSE/SLOW** to pause recording.
  To protect the video heads this function will be terminated after approx. 5 minutes.
- Press **PAUSE/SLOW** again to resume recording.

* Recordings in the S-VHS or S-VHS ET REC mode are supported by the PAL TV system only (SV121 only, page 19).

Tape speed

- Prior to starting the recording session, press **REC MODE** to set the tape speed.

SP :	normal recording time	-	optimal picture quality
LP :	double recording time	-	simple picture quality
EP :	triple recording time	-	reduced picture quality

When playing back LP or EP recordings, interferences may occur when using certain types of cassettes (e.g. Type E-300). These are not indicative of a VCR malfuncion.

Tape Remain counter

The display of the VCR shows:
Time - Counter - Tape Remain.

- Press **STATUS** until [RE] is displayed.

Timer recording

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The Timer recording allows you to programme the recording time of TV programmes up to 1 month in advance. Use the on-screen menu to programme a maximum of 16 recordings.

Timer recording 1 / 3
Pos Date Start Stop VPS PDC
1 ARD 31/12 10:30 11:30 SP ON
1 ARD 31/12 11:30 12:30 SP ON
2 ZDF 31/12 12:30 13:30 SP ON
4 RTL 31/12 13:30 14:30 SP ON
6 VOX 31/12 14:30 15:30 SP ON
-- ---- --/-- --:-- --:-- SP ---
: select ENTER : store
CANCEL : delete EXIT : exit

- Press **PROG/CHECK** and select a free storage position ▲▼.
- Confirm with **ENTER**.
- Select a station ▲▼, and use ▶ to set date, week or weekday ▲▼.
- Then enter start- and stop-time ▲▼, ▶.
- Hold buttons down to change time in 30-minute steps.
- Select tape speed: **A** (Automatic), **SP**, **LP**, **EP** ▲▼, ▶.

- The VPS/PDC settings may be changed with ▲▼ (does not apply to HV51, MV16).
- Press **ENTER** to save timer programme.
- Repeat these steps for further recordings you may wish to programme.
- Press **TIMER** to activate the VCR´s timer mode.
  Make sure the VCR symbol ◴ is displayed.

***** Do not forget to verify that there is enough tape left. The length of the recording must not exceed the tape left on the video cassette.

Quitting the timer mode

- Press **TIMER**, the VCR symbol ◴ will turn off.
  You can now play back a cassette or make a manual recording. Press **TIMER** again to reactivate the previously entered timer programme.

Timer recording

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Checking the timer programme

- Press **PROG/CHECK**, the Timer recording menu appears.
- Press **PROG/CHECK** again or **EXIT** to quit the menu.

Changing or cancelling a timer programme

- Press **PROG/CHECK**, the Timer recording menu appears.
- With ▲▼ select the entry you would like to edit, confirm with **ENTER**.
- Modify entries with ◀▶▲▼ and confirm with **ENTER**.
- Press **RESET/CANCEL** to delete a recording.

Playing back programmed recordings

- Press **PROG PLAY**. The device will rewind to the beginning of the recording, and automatically start playing it back.

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Automatic SP/LP selection

A: If, at the beginning of a timer programme, there is not enough tape left to complete it, the SP/LP function will automatically run the tape at LP speed. This ensures that the entire programme will be recorded. If the LP mode is not enough to 'stretch' the remaining tape to fit, you will not be able to record all of the TV programmes.

***** It is not possible to automatically activate the EP mode.

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VPS/PDC function

If a TV programme begins or ends earlier or later than planned, this function synchronises the beginning and end of the recording session with the actual beginning and end of the TV programme through a VPS signal transmitted by the TV station.

ON : The station transmits VPS/PDC signals. You must set the timer to the time specified in the TV magazines. Use the special VPS time the TV magazine may indicate.

- - - : The station does not transmit VPS/PDC signals. Try to set the start and stop time such that the entire film can be recorded even if a programme begins or ends earlier or later than planned.

Recording with INTELLIGENT TIMER

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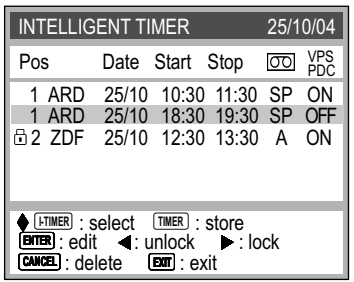
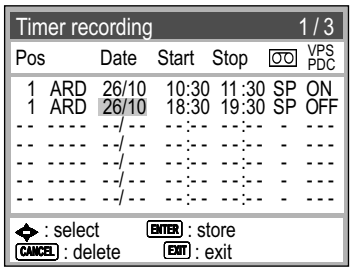
The INTELLIGENT TIMER allows you to easily time the recording of programmes broadcasted by the same TV station at the same daytime at different days.

I-TIMER

To use the INTELLIGENT TIMER function, at least one recording session must be programmed in the Timer recording menu (page 21). This information will be copied into the INTELLIGENT TIMER menu.
Upon completing the programmed recording session, such session information will be deleted from the Timer recording menu, but remain available in the INTELLIGENT TIMER menu. From there such information may be copied back to the Timer recording menu, thus allowing you to easily programme the recording session again with changed dates.

The INTELLIGENT TIMER menu will contain information about the last 5 programmed recording sessions.


INTELLIGENT TIMER 25/10/04
Pos Date Start Stop VPS PDC
1 ARD 25/10 10:30 11:30 SP ON
1 ARD 25/10 18:30 19:30 SP OFF
2 ZDF 25/10 12:30 13:30 A ON
I-TIMER : select TIMER : store
ENTER : edit ◀ : unlock ▶ : lock
CANCEL : delete EXIT : exit


Timer recording 1 / 3
Pos Date Start Stop VPS PDC
1 ARD 26/10 10:30 11:30 SP ON
1 ARD 26/10 18:30 19:30 SP OFF
: select ENTER : store
CANCEL : delete EXIT : exit

Copying stored recording sessions

- Press **I-TIMER**.
- With ▲▼ or **I-TIMER** select recording session.
- Press **TIMER** to activate the timer mode.

Editing a programme

- Press **I-TIMER**.
- Press ▲▼ or **I-TIMER** to select a programme and confirm with **ENTER**.
- The Timer recording screen appears.
- With ◀▶▲▼ modify the desired data, and store changes with **ENTER**.
- Press **TIMER** to activate the timer mode.

Protecting I-TIMER programmes

If there are 5 entries in the INTELLIGENT TIMER menu, the next and every following entry overwrites the oldest programme setting.

- Press **I-TIMER**.
- With ▲▼ select an entry.
- To protect the entry press ▶. The 🔒 symbol appears.
- To remove protection press ◀. The 🔒 symbol disappears.

Recording with ShowView

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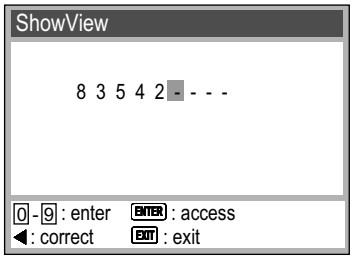

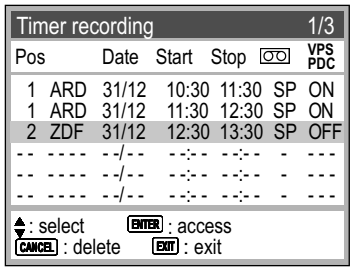
Timer recording 1/3
Pos Date Start Stop VPS PDC
1 ARD 31/12 10:30 11:30 SP ON
1 ARD 31/12 11:30 12:30 SP ON
2 ZDF 31/12 12:30 13:30 SP OFF
▲▼ : select
ENTER : access
CANCEL : delete
EXIT : exit

ShowView
is a trademark of Gemstar Development Corporation. The ShowView system is manufactured under licence from Gemstar Development Corporation.

ShowView

Programming recordings with the ShowView function

The ShowView code simplifies entering programme information to record TV and SAT programmes.

- Press **ShowView**.
- Enter the ShowView number (◀ to correct entry).
- Confirm entry with **ENTER**.
  The Timer recording screen appears.

If the device fails to recognise the TV station automatically, it must be entered manually with ▲▼. The VCR will store this information so it will not have to be entered again.

Activating timer mode

- Press **TIMER** to activate the timer mode.
  The ◴ symbol appears on the VCR display.

Modifying programmed data

- Press **PROG/CHECK**,
  the Timer recording menu appears.
- With ▲▼ select the entry to be modified, confirm with **ENTER**.
- Select station ▲▼ and use ▶ to set date, week or weekday ▲▼, ▶.
- Then enter start and stop time ▲▼, ▶.
- Select tape speed: **A** (Automatic), **SP**, **LP**, **EP** ▲▼, ▶ and confirm with **ENTER**.

TIMER

- Press **TIMER** to activate the VCR's timer mode.

Recording with external recording controls

Others	2 / 2
Power save	: OFF
VCR display	: DIMMED
S-VHS REC	: ON
S-VHS ET REC	: OFF
EXT LINK	: 2

◆ : select
MENU : return EXIT : exit

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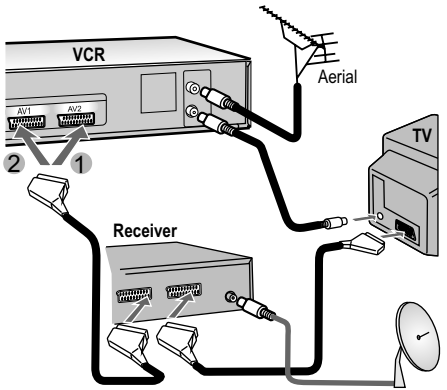
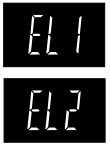
- Press **MENU**, the Menu screen appears.
- With ▼ select menu Others and confirm with **ENTER**.
- With ▲▼ select EXT LINK and turn to [2] or [1] ◀▶ .
- Press **MENU** to return to the Menu screen.

EXT LINK 2: External recording control for some satellite or digital receivers (video signal).

EXT LINK 1: For digital receivers transmitting a special recording control signal, e.g. the F.U.N. receiver (TU-DSF41).



1 NV-SV121, NV-HV61, NV-HV51EC
2 NV-HV51EG, NV-MV21, NV-MV16



- Press **EXT LINK** to activate the VCR´s recording stand-by mode. Make sure the VCR´s EL1 or EL2 display appears. As long as the satellite or digital receiver transmits the special recording signal (EL1), or a video picture is transmitted (EL2), the VCR will continue to record.

  The following screen will be shown if you select EXT LINK: [2]:

- Press **ENTER** to hide this message.
- Press **EXT LINK** to stop recording.

***** Be sure that the timer programmes stored by your VCR do not overlap with the ones of the satellite or digital receiver.

Quitting recording stand-by mode

- Press **EXT LINK** to quit recording stand-by mode. The EL1 or EL2 display disappears. You can now play back a cassette or make a manual recording. You must press **EXT LINK** again to reactivate the recording stand-by mode.

Playback

SV121 HV61 HV51 MV21 MV16

Optimising the playback picture quality

Normally the VCR automatically adjusts the playback picture to the highest possible quality. Sometimes it may be necessary though to adjust the picture manually.

Picture noise or unclear picture during playback. (Tracking)

- While in regular playback or in slow motion press programme selection button ⌄ (-) or ⌃ (+) until the noise disappears.
  If noise appears in a still picture, first switch VCR to slow motion, then adjust tracking.

* In some video cassettes tracking can not be adjusted. This is not indicative of a VCR malfunction.

Automatic tracking control

- Simultaneously press ⌄ (-) and ⌃ (+).

The still picture runs up or down

- In still playback mode hold ⌄ (-) or ⌃ (+) until the picture stands still.

* On some TV sets special playback functions may cause the picture to shift up or down. This is not a VCR malfunction.

Normal playback

- Turn on the VCR.
- Be sure the TV set is turned on and tuned to the video playback channel.
- Insert a video cassette.
- Press **PLAY** ▷ to start playback.
- Press **STOP** □ to end playback.

Playback from power stand-by mode

When inserting a cassette and pressing **PLAY** ▷, the device will turn itself on and start playing back.

Starting automatic playback

When inserting a cassette with removed protection tab, playback will start automatically.

Repeat playback

The VCR repeats playback from beginning to the end of the recording.

- In stop or playback mode press **PLAY** ▷ for longer than 5 seconds.
  The symbol [R] appears on the VCR´s display.
- Press **STOP** □ to end playback.

Time limited recording or playback

During recording, playback or stop mode the device switches to stand-by after a preset period of time.
Press the button repeatedly to increase this period from 30 to 60, 120, 180 or 240 minutes.
The set time appears in the VCR's display.

- Press **OFF-TIMER**

General convenient functions

SV121 HV61 HV51 MV21 MV16

Auto-Start
When inserting a cassette the VCR will automatically switch on.

Automatic rewinding
When a cassette is played to the end, the VCR will automatically rewind it to the beginning of the tape.
* This function is not available during programmed recording sessions.

Search forward ⏩ or backwards ⏪
- While playing back press ⏩ or ⏪, the search begins.
- When pressing the button twice (JET SEARCH) the search speed increases.
- When holding the button down the search will run for the duration of the button being held.
- Press **PLAY** ▷ to end search.

* This function is not available in some cases (e.g. at the beginning or end of the tape).

Fast winding forward ⏩ or backwards ⏪
- In stop mode press ⏩ or ⏪.
- Press **STOP** □ to end winding.

JET REW
For fast rewinding to the beginning of the tape.
On a E180 cassette approx. 43 seconds.
* Tape counter and tape remain display are unavailable during this function.

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Quick search for a beginning of a recording
While playing back or in stop-mode.
- **INDEX** ⏭ tape winds forward / **INDEX** ⏮ tape rewinds. Every time you press the button (max. 20 times) the VCR will find the start of the next recording. Playback will start automatically.
- Press **STOP** □ to exit the Search function.

Still playback
- Press **PAUSE/SLOW** during playback.
- To exit still playback press **PAUSE/SLOW** again or **PLAY** ▷.

Slow playback (does not apply to MV21, MV16)
- During playback press **PAUSE/SLOW** for longer than 2 seconds.
- To exit slow motion playback press **PLAY** ▷.

Automatic stop function
To protect the video heads the device will automatically quit the functions search backwards/forwards, quick search, still playback and slow playback after 5-10 minutes. Interference and motor noise are not a malfunction.

General convenient functions

SV121 HV61 HV51 MV21 MV16

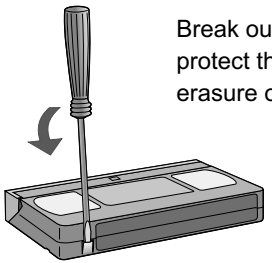
Tape Counter
When inserting a video cassette the tape counter will automatically reset to [0:00.00].
- The tape counter may also be reset to [0:00.00] by pressing the **RESET/CANCEL** button.

SV121 HV61 HV51 MV21 MV16

AUDIO settings
Select audio playback mode by repeatedly pressing the **AUDIO** button.

Stereo playback:	Display: L R
Left channel:	Display: L -
Right channel:	Display: - R
Mono playback:	Display: - -

Cassette erasure protection



Break out the erasure protection tab to protect the cassette against accidental erasure of recordings you wish to keep.

Stick adhesive tape over the gap if you wish to re-record a protected cassette.

Device only operation.

SV121 HV61 HV51 MV21 MV16

Automatic shut down and removing cassettes
If the VCR is switched into stand-by mode, the cassette may be removed by pressing the **EJECT**-button.
Once done the VCR will switch back to stand-by mode.

QUICK ERASE
To record on a cassette containing previous recordings without loss of quality, erase these recordings with the **QUICK ERASE** function.
- Press and hold the **QUICK ERASE** button for a few seconds.
  It takes approx. 30 minutes to erase an E-180 cassette.

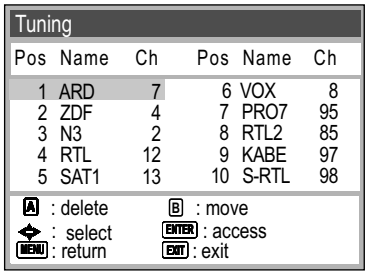
High quality functions

SV121 HV61 HV51 MV21 MV16

3D DNR, 3-Dimensional Digital Noise Reduction
Improving picture quality by noise reduction.
- Press the **3D DNR** button to deactivate this function.
  The status will be displayed on the TV screen.

TBC, TIME BASE CORRECTION
TBC offers undistorted and stable playback picture quality.
- Press the **TBC** button to deactivate this function.
  The status will be displayed on the TV screen.

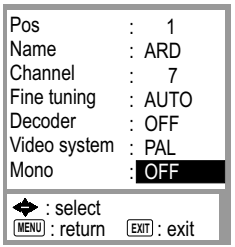
NICAM sound system


Tuning
Pos Name Ch Pos Name Ch
1 ARD 7 6 VOX 8
2 ZDF 4 7 PRO7 95
3 N3 2 8 RTL2 85
4 RTL 12 9 KABE 97
5 SAT1 13 10 S-RTL 98
A : delete
B : move
: select
ENTER : access
MENU : return
EXIT : exit

SV121EC HV61EC HV51EC

Select Mono: [ON] to record mono sound to the Hi-Fi audio tracks of the VCR, or if the quality of stereo sound reception is bad.

- Press **MENU**, the Menu screen appears.
- With ▼ select the Tuning menu and confirm with **ENTER**.
- Confirm Manual with **ENTER**.
- With ◀▶▲▼ select the desired channel and confirm with **ENTER**.
- With ▼ select Mono and switch to [ON] or [OFF] with ◀▶.
- Press **MENU** to return to Tuning.



NTSC playback

SV121 HV61 HV51 MV21 MV16

Playing back NTSC video cassettes

You can play back NTSC video cassettes for viewing on a PAL system TV set. If there is any interference when playing back NTSC, try readjusting your TV set. Read the operating instructions of your TV set. You cannot record or copy video cassettes in NTSC format.

Before requesting service

The VCR display is not lit:

- Check AC mains connection.
- Check Power save 19

The VCR display is lit, the device does not respond to controls:

- Device is set to recording stand-by or timer mode.
  Quit with **EXT LINK** button or **TIMER** button.

Raised motor noise level:

- Fast winding forward and backwards causes motor noises.
  These are not malfunctions.

Remote control unit functions don't work:

- Check distance to the device (max. 7 metres).
- Check remote control unit's batteries 2

Automatic Clock set doesn't work properly:

- Set Clock set to [AUTO] 11
  If the device cannot find a TV station transmitting the time signal, set Time and Date manually.

Bad picture or sound:

- The use of E-300 cassettes may cause problems if the recordings were taken at low tape speeds (LP or EP).
- Check [PAL] and [MESECAM] settings. 18
- Verify that the aerial and/or Scart cables are attached and work properly.
- Check the SQPB/ S-VHS playback setting for S-VHS cassettes. 18
- Faulty recordings taken at slow tape speed (EP) in [MESECAM] are not malfunctions.
- Please contact your service technician if the video heads are dirty or worn out.
- Having a technical service shop clean the video heads is not covered by the guarantee.

The recording functions do not work properly:

- If flashes on the device, check if the protection tab of the video cassette is still in.
- Check Time and Date 11
- Check the start and stop time of the timer programme. 21
- Check if the **TIMER** button has been pressed to put the device into timer mode after programming a recording. 21
- Check the start and stop time of a VPS/PDC recording. 22

Please contact our after sales service centre if you fail to remove problems by yourself (see Guarantee Information).

Specifications

Switching this appliance into stand-by mode does not disconnect it from the mains.

Power supply	**220-240 V AC, 50/60 Hz**				
Power consumption	**SV121**	**HV61**	**HV51**	**MV21**	**MV16**
Power consumption in operation	18W	15W	15W	13W	13W
in Power save mode 19	3W	3W	3W	3W	3W
Controls	Multifunctional remote control (VCR and Panasonic TV) / VCR direct controls (main functions)				
Playback functions	**SV121**	**HV61**	**HV51**	**MV21**	**MV16**
Video TV system	PAL	PAL	PAL	PAL	PAL
NTSC Playback on PAL TV	X	X	-	X	-
S-VHS Quasi Playback (SQPB)	-	X	X	X	X
S-VHS	X	-	-	-	-
S-VHS ET	X	-	-	-	-
Video and Audio heads (helical scanning system) Tape speed Record and playback time (E-240 cassette)	S-VHS/Hi-Fi: 4 heads / 2 Audio heads, Mono: 2 heads SP: 23.39 mm/s, LP: 11.7 mm/s SP: 240 min, LP: 480 min				
Video TV colour system Video input and output level RF modulated	PAL colour signal 1.0 V peak-to-peak, 75 Ohm, terminated UHF channel (21-69), 75 Ohm				
Audio input level Audio output level	-6 dBV, more than 10 kOhm -6 dBV, less than 1 kOhm				
Horizontal resolution (colour) Signal-to-noise ratio video (colour) Signal-to-noise ratio audio Dynamic range audio Audio frequency response	More than 240 lines (VHS, SP), 400 lines (S-VHS/ S-VHS-ET, SP) More than 43 dB (SP) More than 43 dB (SP, Mono) More than 90 dB (Hi-Fi sound tracks) 80 Hz to 8 kHz (SP, Mono), 20 Hz to 20 kHz (Hi-Fi sound tracks)				
Operating temperature / humidity	5°C to 40°C / 35-80% relative humidity				
Weight and dimensions (approximate value)	3.5 kg / 430 (width) x 89 (height) x 276 mm (depth)				

*** These specifications are subject to change without notice.**

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